REMARKS

The Office Action dated June 15, 2009, has been received and carefully noted. The above amendments to claims 1, 3, 7, 8, 10, 14, and 18, are submitted in furtherance of Applicant's Response filed on August 26, 2009.

Applicant thanks the Examiner for the courtesies extended to Applicant's representative during the Examiner-initiated interview of September 24, 2009. During the Examiner Interview, the Examiner requested Applicant's representative to amend independent claim 10 with the features recited in dependent claims 11 and 12, and to make similar amendments to independent claims 1, 14, and 18, to place the application in condition for issuance.

Thus, by this Supplemental Response, claims 1, 3, 7, 8, 10, 14, and 18 have been amended with the features recited in dependent claims 2, 6, 11, 12, and 17, to more particularly point out and distinctly claim the subject matter of the present invention, as requested by the Examiner during the Examiner Interview of September 24, 2009. Accordingly, claims 2, 6, 11, 12, and 17 have been cancelled without prejudice or disclaimer. It is respectfully requested, therefore, that claims 1, 3-5, 7-10, 13-16, and 18 be allowed, and this application be passed to issue.

Applicant respectfully requests reconsideration and timely withdrawal of the pending rejections to the claims for the reasons discussed below.

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Double Patenting Rejection

The Office Action provisionally rejected claims 1-17 under the judicially created doctrine of non-statutory obviousness-type double patenting over claims 1-19 of U.S. co-pending Application No. 11/630,159. The double patenting rejections are provisional because the conflicting claims have not yet been issued. The provisional rejections are moot because the co-pending application is still pending and the scope of the claims involved may change before any of these patent applications issue. Withdrawal of the rejections as moot is respectfully requested.

Claim Rejections under 35 U.S.C. §102(e)

The Office Action rejected claims 1-18 under 35 U.S.C. §102(e) as allegedly anticipated by Liu (U.S. Publication No. 2004/0190467). The Office alleged that Liu discloses or suggests every claim feature recited in claims 1-18. Applicant respectfully submits that the claims recite subject matter that is neither disclosed nor suggested in Liu.

Claim 1, upon which claims 3-5 and 7-9 depend, recites a method. The method includes receiving beacon frames at beacon intervals, extracting beacon interval information from a beacon frame, and monitoring data traffic of a terminal. The method further includes defining at least one parameter describing a data traffic pattern of the terminal, and dynamically controlling a power state of the terminal by the terminal, on the basis of the at least one parameter describing the data traffic pattern of the terminal and the beacon interval information, so that the terminal is maintained in one of at least

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two power states. Further, the method includes supplying additional input data comprising at least one requirement parameter describing requirements set by an application, active in the terminal, for the controlling the power state of the terminal. The at least two power states include an active state and a power save state. The monitoring includes monitoring packet sizes and packet intervals of the data traffic.

Claim 10, upon which claim 13 depends, recites an apparatus. The apparatus includes a receiver configured to receive beacon frames at beacon intervals, and an extractor configured to extract beacon interval information from a beacon frame. The apparatus further includes a traffic monitor configured to monitor data traffic of a terminal and to define at least one parameter describing a data traffic pattern of the terminal, and a controller configured to manage power for dynamically controlling a power state of the terminal on the basis of the at least one parameter describing the data traffic pattern of the terminal and the beacon interval information to maintain the terminal in one of at least two power states. The at least two power states include an active state and a power save state. The traffic monitor includes a packet analyzer configured to analyze packet sizes and packet intervals. The controller includes an interface configured to control applications residing in the terminal and to receive additional input data from an application. The additional input data includes at least one requirement parameter describing requirements set by the application for the controller.

Claim 14, upon which claims 15-16 depend, recites a system. The system includes at least one system entity configured to broadcast beacon frames at beacon intervals, and

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at least one wireless terminal configured to extract beacon interval information from a beacon frame. The at least one wireless terminal includes a traffic monitor configured to monitor data traffic of the at least one wireless terminal and to define at least one parameter describing a data traffic pattern of the terminal. The at least one wireless terminal further includes a controller configured to dynamically control a power state of the at least one wireless terminal on the basis of the at least one parameter describing the data traffic pattern of the terminal and the beacon interval information to maintain the at least one wireless terminal in one of at least two power states. The at least two power states include an active state and a power save state. The traffic monitor includes a packet analyzer configured to analyze packet sizes and packet intervals. The controller includes an interface configured to control applications residing in the terminal and to receive additional input data from an application. The additional input data includes at least one requirement parameter describing requirements set by the application for the controller.

Claim 18 recites an apparatus. The apparatus includes receiving means for receiving beacon frames at beacon intervals, and extracting means for extracting beacon interval information from a beacon frame. The apparatus further includes traffic monitoring means for monitoring data traffic of a terminal and to define at least one parameter describing a data traffic pattern of the terminal, and controlling means for managing power for dynamically controlling a power state of the terminal by the terminal on the basis of the at least one parameter describing the data traffic pattern of the terminal

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and the beacon interval information to maintain the terminal in one of at least two power states. The at least two power states comprise an active state and a power save state. The traffic monitoring means is further for analyzing packet sizes and packet intervals. The controlling means is further for controlling applications residing in the terminal and receiving additional input data from an application. The additional input data includes at least one requirement parameter describing requirements set by the application for the controlling means.

Applicant respectfully submits that certain embodiments of the invention provide non-obvious advantages. Specifically, certain embodiments of the present invention relate to at least one parameter describing a data traffic pattern of a terminal used with beacon interval information to dynamically control a power state of the terminal **by the terminal**. As a result, a power save mode can more efficiently utilize silent periods during which no transmission or reception occurs at the terminal.

As will be discussed below, Liu fails to disclose or suggest each and every element recited in claims 1, 3-5, 7-10, 13-16, and 18, and therefore fails to provide the advantages and the features discussed above. Claims 2, 6, 11, 12, and 17 have been cancelled without prejudice or disclaimer.

Liu is directed to a power saving mechanism for wireless LANs via a schedule information vector. Liu describes scheduling data transmissions of stations with a Schedule Information Vector (SIV) protocol. In the SIV protocol, an access point (AP) transmits a SIV frame that includes scheduled wake-up times for the stations. The

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scheduled wake-up times may be adjusted on the basis of the network traffic. Liu further teaches that a power saving station needs to wake up periodically for the beacon and the SIV frames. After the power saving station has received the schedule in a SIV frame from the AP, the power saving station decides whether to go back to sleep or to continue listening for transmissions (Liu, paragraphs [0025]-[0032]).

Claim 10 has been amended to incorporate the features of originally recited dependent claims 11 and 12. Thus, claim 10 recites, in part, "wherein the traffic monitor comprises a packet analyzer configured to analyze packet sizes and packet intervals, wherein the controller comprises an interface configured to control applications residing in the terminal and to receive additional input data from an application, and wherein the additional input data comprises at least one requirement parameter describing requirements set by the application for the controller." Applicant respectfully submits that Liu fails to describe or suggest these features.

The Office Action cited the SIV frame protocol of the wireless network described in paragraphs [0045] and [0046], and the power saving method (steps 905-940) described in paragraphs [0101]-[0104] of Liu, to allege that Liu describes the aforementioned claim features. However, a review of these passages demonstrates that Liu fails to describe or suggest each and every element recited in claim 10.

In particular, claim 10 recites that the "traffic monitor" comprises a separate structural element, a "packet analyzer configured to analyze packet sizes and packet intervals." In paragraphs [0045] and [0046], Liu describes an SIV frame protocol of a

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wireless network that is adjusted to provide scheduled wake-up times of mobile stations. Liu further describes that the dynamic adjustments may be based on one or a combination of network traffic, traffic buffering times, data priorities, data length, and data rates. Liu fails to describe or suggest a "traffic monitor" and a separate structural element, a "packet analyzer configured to analyze packet sizes and packet intervals," as recited in claim 10.

Furthermore, contrary to the Office Action's allegations, Liu fails to describe or suggest, at least, "wherein the controller comprises an interface configured to control applications residing in the terminal and to receive additional input data from an application, and wherein the additional input data comprises at least one requirement parameter describing requirements set by the application for the controller." The power saving method described by steps 905 to 940 in Liu is directed to the control of an uplink or downlink of data between mobile stations and an access point of a wireless network. Contrary to the Office Action's allegations, Liu fails to describe or suggest that the NETWORK layer (cited as the controller – *see* Office Action on page 6) "comprises an interface configured to control applications residing in the terminal and to receive additional input data from an application, and wherein the additional input comprises at least one requirement parameter describing requirements set by the application for the controller," as recited in claim 10 (emphasis added). Accordingly, Liu fails to describe or suggest each and every element recited in claim 10.

Claims 1, 14, and 18 each have their own claim scope, but additionally contain limitations similarly recited in claim 10. Accordingly, for similar reasons noted above

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for claim 10, Applicant respectfully submits that Liu fails to describe or suggest each and every element recited in claims 1, 14, and 18.

Applicant also respectfully submits that Liu fails to describe or suggest, at least, "dynamically controlling a power state of the terminal <u>by the terminal</u>, on the basis of said at least one parameter describing the data traffic pattern of the terminal and the beacon interval information, so that the terminal is maintained in one of at least two power states," as recited in claim 1 (emphasis added), and similarly recited in claims 10, 14, and 18 (*see* Applicant's Response, dated August 26, 2009, on pages 11-16).

Claims 3-5 and 7-9 depend from claim 1. Claim 13 depends from claim 10. Claims 15-16 depend from claim 14. Accordingly, claims 3-5, 7-9, 13, and 15-16 should be allowable for at least their dependency upon an allowable base claim, and for the specific limitations recited therein. Claims 2, 6, 11, 12, and 17 were cancelled without prejudice or disclaimer.

Therefore, Applicant respectfully requests withdrawal of the rejections of claims 1-18 under 35 U.S.C. §102(e) and respectfully submits that claims 1, 10, 14, and 18, and the claims that depend therefrom, are in condition for allowance.

<u>CONCLUSION</u>

In conclusion, Applicant respectfully submits that Liu fails to describe or suggest each and every element recited in claims 1, 3-5, 7-10, 13-16, and 18. The distinctions previously noted are more than sufficient to render the claimed invention unanticipated.

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It is therefore respectfully requested that all of claims 1, 3-5, 7-10, 13-16, and 18 be allowed, and this present application be passed to issuance.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicant's undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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